

(19) World Intellectual Property
Organization
International Bureau



551599

(43) International Publication Date
14 October 2004 (14.10.2004)

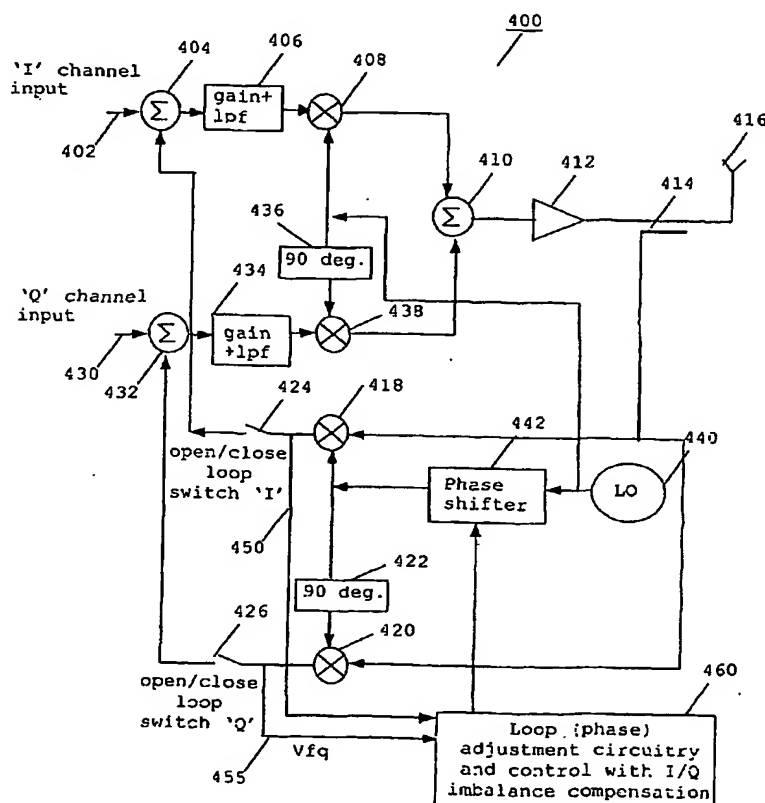
PCT

(10) International Publication Number
WO 2004/088945 A1

- (51) International Patent Classification⁷: **H04L 27/36, H03F 1/32**
- (21) International Application Number: **PCT/EP2004/050295**
- (22) International Filing Date: **11 March 2004 (11.03.2004)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
0307372.3 31 March 2003 (31.03.2003) GB
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,**

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(54) Title: **METHOD AND APPARATUS FOR LINEARIZATION IN A QUADRATURE TRANSMITTER**



(57) Abstract: A wireless communication unit (300) comprises a linearised transmitter (325) having a forward path, a power amplifier (324) and a feedback loop, operably coupled to the power amplifier (324) and the forward path. The feedback loop comprises a loop adjustment function (442), and the forward path and feedback loop comprise quadrature circuits. A processor (322) applies a first training signal to a first quadrature circuit loop for routing through the forward path, power amplifier and feedback path to determine at least one first parameter setting of the loop adjustment function (442). The processor (322) also applies a second training signal to a second quadrature circuit loop to determine at least a second parameter setting of the loop adjustment function (442). A linearised transmitter integrated circuit and method of training are also described. In this manner, by provision of a first training signal applied to a first quadrature (I) circuit loop and a second training signal applied to a second quadrature (Q) circuit any loop imbalance between the digital 'I' and 'Q' paths around the feedback loop can be compensated for.



TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.